BATTLE RIVER IMPLEMENTS LTD.

FEBRUARY 2025 AGRONOMY UPDATE

Managing Volunteer Canola

Provost area June 6, 2024

Controlling volunteer canola in our crops can be a real issue some years. And weed surveys confirm that this is a growing problem. At the turn of the century, volunteer canola barely cracked the top 20 on the list of weed problems – by 2017 it was firmly entrenched in the top 5. According to Charles Geddes (AAFC), a combination of weather events such as hail or damaging winds, swathing and/or combining speed and timing, as well as poor combine settings conspire to return up to 5,000 seeds per m2 to the soil after a canola crop. And the widespread adoption of herbicide tolerant canola presents challenges for controlling that canola in the next crop. Managing the weed with herbicides alone is becoming more complex, whether it is as a pre seed burnoff, in crop or at pre-harvest. And even if our burnoff and in crop herbicides do a good job, late flowering volunteers can be a real challenge at harvest time. Flowering canola takes a long time to dry down enough after a pre-harvest application so as not to interfere with straight-cutting of a cereal or pulse crop. Judging by the increasing prominence of volunteer canola on successive Prairie Weed Surveys, it seems we cannot count on herbicides alone to keep the weed in check.

Canola seed has the ability to go into a “secondary dormancy” if exposed to warm dry weather after harvest, so the seed bank can supply weeds for 2 to 3 years after each canola crop. Therefore, anything producers can do to decrease the amount of canola going into the seed bank will pay big dividends. And that starts with the combine. A bushel/acre of canola thrown over represents roughly 600,000 seeds – so combine settings can obviously have a huge impact on the scope of the volunteer canola problem the next year.

The next opportunity to impact the volunteer canola comes right after harvest. Research indicates that disturbing the soil after harvest can have a big impact on the number of volunteers that will need to be dealt with the next year. How aggressively you disturb the soil doesn’t seem to matter – results were very similar for heavy harrows and vertical tillage operations. **When** you do it has a larger impact. Soil disturbance done immediately after harvest stimulated much more growth than those done later in the fall, assuming there is enough soil moisture to cause germination. Waiting until spring to harrow or till showed only negligible results. Getting out there early prevents more of the canola from going into secondary dormancy and still being around to cause issues for the following crops.

So remember, when dealing with volunteer canola, the most valuable weapon is the combine. Reducing combine losses will have the biggest impact on the amount of volunteer canola dealt with the following year. But once that seed is on the ground, timely soil disturbance is the next critical step. A heavy harrow or vertical tillage within days of harvest before the canola has a chance to go into dormancy may stimulate up to twice the germination when compared to leaving it for several weeks. These two practices will go a long way to keeping volunteer canola under control.